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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,451

08/27/2003

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011775-013210US

7137

20350 7590 07/25/2008
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EXAMINER

NADAV, ORI

ART UNIT

PAPER NUMBER

2811

MAIL DATE

DELIVERY MODE

07/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Response to Arguments

Applicant argues that an artisan would not be motivated to combine Yano and Gross, because Yano does not suggest any problem associated with his device.

An application for a patent describes a superior device, which is an improvement to an existing device, and not a deficient structure. Therefore, there will be no disclosure of any problems associated with such superior device. Gross, however, provides superior isolation structure, which will improve the electrical isolation capabilities of Yano's device.

Applicant argues that Gross relates to an entirely different device, i.e. integrated circuit rather than a power device.

A power device is an integrated circuit. Therefore, Gross's device is not an entirely different device. Furthermore, an electronic device requires an isolation structure. The same isolation structure can apply to different electronic devices. Therefore, the isolation structure of Gross can apply to the electronic structure of Yano.

Applicant argues that Gross does not teach a peripheral junction region of second conductivity formed at least partly within an N type isolation diffusion

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region, because Gross forms resistors in the isolation regions, and the peripheral junction region of claim 1 is not a resistor.

The examiner does not cite the resistors of Gross as being the peripheral junction region. Gross explicitly state in column 1, lines 38-41 that "In the parts of the isolation region 24 where no resistors are needed, a heavily doped N type diffusion region is formed to increase the isolation". Therefore, Gross teaches in figure 2 and related text a peripheral junction region of second conductivity N+ formed at least partly within an N type isolation diffusion region 16, 17, as claimed.

Applicant argues that one skilled in the art would not be motivated to combine Yano and Gross as suggested by the Examiner since doing so would not realize predictable results, because the heavily doped diffusion regions of Gross are used to increase the isolation between a resist and adjacent elements.

Certainly, Gross uses his isolation structure to provide isolation to elements in the disclosed structure and not to provide isolation to elements which are not present in the disclosed structure. When using the isolation structure of Gross in a different structure, the isolation structure will isolate the elements of said different structure.

Applicant argues that prior art does not teach a device being a diode, as recited in claim 30.

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Independent claim 1 recites “a power device, comprising”. Dependent claim 30, which must further limit independent claim 1, recites “the device is a diode”. It is understood that a diode must be present in the claimed device. A PN junction is a diode. Therefore, although prior art does not explicitly state the term “diode”, the PN junction present in prior art’s device is the claimed diode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ori Nadav whose telephone number is 571-272-1660. The examiner can normally be reached between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Lynne Gurley can be reached on 571-272-1670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the

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Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

O.N.
7/26/2008

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